

Claims

- 1 1. A combination plow and claw assembly for plowing a surface and clawing a
2 surface wherein the function of the assembly can be easily changed by the operator of
3 the vehicle during use of the assembly comprising:
 - 4 a first elongated horizontal pipe support member;
 - 5 a support flange fixedly secure to each end of the elongated horizontal pipe
6 support member, the pipe having a longitudinal opening extending along the
7 length of the pipe between the support flanges;
 - 8 an angularly downward plow plate extending between the support flanges and
9 fixedly secured to each support flange and/or the lower portion of the
10 elongated horizontal pipe support member;
 - 11 a second rotatable elongated horizontal pipe support member axially disposed
12 within the first elongated horizontal pipe support member and extending past at
13 least one of the outer surfaces of the support flanges;
 - 14 a plow and claw plate fixedly secured to the second rotatable elongated horizontal
15 pipe support member;
 - 16 means for rotating the second rotatable elongated horizontal pipe support member;
17 and
 - 18 support means for attachment of the first elongated horizontal pipe support
19 member and/or the support flanges to moving means;
 - 20 wherein, when the plow and claw assembly is used as a plow with the moving
21 means moving forward, the second rotatable plow and claw plate is rotated to
22 an upward position and, when the plow and claw assembly is used as a claw
23 with the moving means moving backward, the second rotatable plow and claw
24 plate is rotated to a downward position so that the unsecured end of the plate is
25 proximate the surface being clawed.
- 1 2. A combination plow and claw assembly of claim 1 wherein the plow and claw
2 plate is curved inward at its unsecured end.

1 3. The combination plow and claw assembly of claim 1 wherein the second
2 rotatable horizontal pipe support member has a longitudinal opening extending along
3 the length of the pipe and the plow and claw plate is secured at the edges of the
4 opening.

1 4. The combination plow and claw assembly of claim 1 wherein the second
2 rotatable horizontal pipe support member is rotated by a piston.

1 5. The combination plow and claw assembly of claim 1 wherein the unsecured
2 end of the plow and claw plate has a trip plate.

1 6. The combination plow and claw assembly of claim 1 wherein the plow and
2 claw plate has a serrated edge to provide a raking function when used in a claw
3 position.

1 7. A combination plow and claw assembly for plowing a surface and for clawing
2 a surface wherein the operator of the vehicle can easily change the function of the
3 assembly during use of the assembly comprising:

- 4 a conventional plow including a plow having a plow surface, support means for
5 attaching the plow to a vehicle and adjusting means for adjusting the position
6 of the plow and plow surface;
- 7 an elongated horizontal support member rotatably attached to the plow and running
8 along the plow surface;
- 9 a claw plate fixedly secured to the elongated horizontal support member; and
- 10 means for rotating the elongated horizontal support member;
- 11 wherein, when the assembly is used as a plow when the vehicle is moved forward,
12 the claw plate is rotated to an upward position and, when the assembly is used
13 as a claw and the vehicle is moved backwards, the claw plate is rotated to a
14 downward position so that the unsecured end of the plate is proximate the
15 surface to be clawed.

1 8. The combination plow and claw assembly of claim 7 wherein the conventional
2 plow has flanges at each end thereof to support the elongated horizontal support
3 member.

1 9. The combination plow and claw assembly of claim 8 wherein the support
2 member is fixedly secured to rotatable flanges.

1 10. The combination plow and claw assembly of claim 9 wherein the rotatable
2 flanges are rotated by a piston.

1 11. The combination plow and claw assembly of claim 7 wherein the claw plate
2 comprises a plurality of curved tines.

1 12. The combination plow and claw assembly of claim 7 wherein the claw plate
2 has extendable and retractable tines at its unsecured end.

1 13. The combination plow and claw assembly of claim 7 wherein the claw plate is
2 serrated.

1 14. A combination plow and assembly for plowing a surface and clawing a surface
2 wherein the function of the assembly can be easily changed by the operator of a
3 vehicle during use of the assembly comprising:

4 opposed fixed support plates connected by an elongated cross member forming a
5 support structure;

6 an elongated rotating member rotatably mounted in openings in the support plates;
7 means to rotate the rotating member;

8 an elongated rotating plate fixedly connected to the rotating member and having a
9 lower end and an upper end;

10 an elongated stationary plate fixedly connected to the support plates and having an
11 upper end and a lower end; and
12 support means for attachment of the structure to vehicle moving means;
13 wherein, when the plow and claw assembly is used as a plow with the vehicle moving
14 means moving forward, the elongated rotating plate is rotated to an upward position
15 so that the lower end of the rotating plate and upper end of the stationary plate are
16 proximate and, when the plow and claw assembly is used as a claw with the vehicle
17 moving means moving backwards, the elongated rotating plate is moved to a
18 downward position so that the upper end of the rotating plate is below the lower end
19 of the stationary plate and proximate the surface to be clawed.

1 15. The combination plow and claw assembly of claim 14 wherein the rotating
2 plate is curved inward at its upper end.

1 16. The combination plow and claw assembly of claim 15 wherein the means to
2 rotate the rotating member is a piston.

1 17. The combination plow and claw assembly of claim 14 wherein the elongated
2 rotating plate and the rotating member fixedly connected thereto are sized to fit
3 between the support plates and the assembly further comprises an inner rotating drive
4 shaft axially disposed in the rotating member and fixedly connected thereto with the
5 inner rotating drive shaft connected to the rotating means through openings in the
6 support plate so that the elongated rotating plate and the rotating member rotate when
7 the inner rotating drive shaft is rotated by the rotating means.

1 18. The combination plow and claw assembly of claim 17 wherein the inner
2 rotating drive shaft is fixedly connected to the rotating member by a pin which will
3 shear if the rotating plate hits an object.

1 19. The combination plow and claw assembly of claim 18 wherein the pin extends
2 through the rotating plate, rotating member and inner rotating drive shaft.

1 20. The combination plow and claw assembly of claim 14 wherein the elongated
2 rotating plate is a serrated plate or a flexible tine.